National Aeronautics and
Space Administration

Headquarters
Washington, DC 20546-0001

March 17, 2004

Reply to Attn of:

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Dr. Bruce Alberts
Office of the Chairman
National Research Council
500 5th Street, NW
Washington, DC 20001

Dear Dr. Alberts:

As you know, the mission of the Hubble Space Telescope has been one of the most productive scientific undertakings of all time. One of our principal concerns today is finding the best way to extend the lifetime of this national asset. I would like to ask for the assistance of the National Research Council in ensuring that we have fully considered all reasonable alternatives to this objective. The assessment should address the following issues:

1. Assess the viability of a Shuttle servicing mission to the Hubble that satisfies all CAIB recommendations, as well as any additional ones identified by NASA's ongoing Return to Flight activities. Estimate to the best extent possible the time and resources needed to overcome any unique technical or safety issues associated with Hubble servicing that are required to meet the recommendations of CAIB, as well as ongoing Stafford-Covey RTF activities. Enclosed is a white paper describing these activities.

2. Survey other engineering options available for Hubble servicing that could extend the lifetime of the Hubble. This would include both robotic intervention on-orbit and optimization of ground operations.

3. Assess the response of the spacecraft to likely major component failures, and the resulting impact on servicing feasibility, lost science, and the ability to safely dispose of Hubble at the end of its service life.

4. Based upon the results of assessments carried out in paragraphs 1 through 3, assess the entire gain/risk equation of whether extension of the Hubble service life is worth the risks involved, including a Shuttle servicing mission only if such a mission is found viable in satisfying all the recommendations of the CAIB, as well as ongoing Stafford-Covey RTF activities.

We presently have a study underway at the Goddard Space Flight Center, based in part on a public Request for Information, evaluating means to extend the Hubble's life; we will be pleased to share the results of this activity with you when they become available in about a month.

I would be happy to discuss the scope and schedule of this study with you at your earliest convenience.

Cordially,

Edward J. Weiler
Associate Administrator
for Space Science

Enclosure

cc:
A/Mr. S. O'Keefe
AA/Mr. J. Schumacher
AD/Mr. F. Gregory
AD-2/Mr. G. Martin
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AS/Dr. J. Grunsfeld
GSFC/100.0/Mr. A. Diaz
Space Studies Board/Mr. J. Alexander